

Public Policy for Urban Mobility and Port-City Relations

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Abstract— *The objective was to discuss the interactions between the Harbour and the city. The method used was an exploratory, descriptive study of qualitative analysis through content analysis, and data were collected through secondary sources, with the use of normative and legislative documents of port operation and urban mobility projects, made available on the website of the Mauá Pier and the city of Porto Alegre. Finally, it considers that it is necessary to prioritize the speed of connections that carry the products and or services. And also, requires the development of local capabilities, they should interact with local or global dynamics from the perspective of sustainability, the port cities have a key role in the dynamics of the movement of goods and people, favouring intermodality, as meet global production chain processes driving the increased economic capacity and social interaction with the city and its extensions.*

I. INTRODUCTION

The global reorganization of productive spaces, occupation and circulation of goods and services in a dynamic system, started to demand synchronous and dynamic public policies, capable of tracing specific objectives and changes for the commercial viability of ports and cities, enabling mobility cargo, equipment, technology and labor. The study focuses on the interactions between the port and the city. Which shows a global scenario is favorable to this approach, as well as the need for a democratic project involving public and private forces in the reconstruction and revitalization of port communities, that is, those who live around the port and “live the port”. The globalized world, at the beginning of the 21st century, requires agile and dynamic connections, as well as the appreciation of local potential and the relevance of attitudes towards issues involving the sustainability of natural, social, cultural and economic resources.

An important issue, especially in the areas of connection between the port and the city, is mobility, because when there are deficiencies in planning, management can lead to areas of conflict. The central port areas, then, need to be projected as a meeting point between the city and the port, establishing reciprocal valuation connections in the alignment of services and resources. For this to happen, it is essential to have public policies that provide the port-city relationship. The articulation of public policies is fundamental to commercial transit, in order to guarantee the systemic process of integration and circulation of people and goods, in order to achieve greater balance in the port-city integration. According to Monié and Silva [1]; Veltz [2], from the 1990s onwards there was an intensification of the process of economic internationalization and flow of goods and services, due to the growing integration of the spheres of production, consumption and circulation. The expansion of the port complex within the urban perimeter and the growth of the urban center in port cities created a scenario of potential conflicts between the needs of the port and the particularities and needs of the city, such as: a) the difficulty of intra-urban mobility; b) the intense traffic of trucks with cargo destined for the port; c) need for land for the use of container yards, warehouses, expansion of neighborhoods over rural areas; d) leisure and environmental preservation areas; and e) among other impacts and conflicts in the occupation and use of space.

That said, the problem at issue in this article is: How does the Porto Alegre port complex interfere with urban mobility in the city of Porto Alegre, RS? To partially answer the proposed question, the aim of this study is to analyze the port-city relationship (Porto de Porto Alegre in

Porto Alegre - RS, Brazil). The specific objectives were: a) to describe the legal framework for the exploration of the Port of Porto Alegre; b) identify the port-city relationships based on this legal framework; and c) analyze the recent historical evolution of the functioning of the Port of Porto Alegre, as well as its surroundings (surroundings). It is proposed in this study to discuss and think about the city and its extensions, in order to guarantee the mobility of its inhabitants and the sustainability of its roads in the time now and in the future of the city.

1. 1 Urban mobility

According to Vaccari and Fanini [3], urban mobility is an attribute associated with people and economic actors in the urban environment who, in different ways, seek to meet and supply their displacement needs to carry out daily activities such as: work, education, health, leisure, culture, among others. To achieve these goals, individuals employ direct effort, resorting to non-motorized or motorized means of transport. It is essential, therefore, to understand that mobility in the context and way of life of contemporary cities and, particularly, of Brazilian cities constitutes a structuring part of the functioning of urban society. Thus, the rapid and intense transformation of the Brazilian population from predominantly rural to mostly urban in the 20th century, occurred from the exclusionary urban development model that concentrated on economic, territorial and demographic aspects (approximately 60% of the Brazilian urban population is concentrated in 224 municipalities with more than 100,000 inhabitants).

According to Lassave [4], knowledge of the practices and meanings of displacement in space and its determinants are, without a doubt, the most visible and durable axis of research in socioeconomic transport, and the central idea is mobility. The socioeconomic issue of transport can be understood as a phenomenon of mobility that is linked to the understanding of space and time as: a) in the Marxist perception: mobility is interpreted as an instrument for mobilizing labor; b) in the view of the Scandinavian School of Geography: mobility is perceived as an instrument for carrying out a program of activities located in space and time; c) from an economic point of view: mobility is perceived in terms of the way of life and the social division of space; d) in the understanding of sociology: it is understood by the feeling of the individual being subject to displacement.

In addition, Brazil has been living for some time, and especially since the second term of the Inácio “Lula” da Silva government, with a lack of articulation between the different public policies and also with a lack of alignment of these policies. The country had to get very close to logistical chaos, especially in large urban centers, for the

then-governors to launch the Growth Acceleration Program - PAC as an emergency measure to overcome the large deficit in infrastructure for the movement of people, goods and inputs. The same happened with the Minha Casa, Minha Vida Program - MCMV, also launched as an emergency to solve old bottlenecks in the national housing system and improve the living conditions of the low-income population. It is not very difficult to conclude that, in this case, the PAC-urban mobility must be strongly aligned with the MCMV, a fact that does not occur.

According to Brasil [5], (2005), the City Statute (Law n. 10,257, of July 10, 2001) regulates articles 182 and 183 of the Federal Constitution and establishes a set of guidelines and instruments for the implementation of urban policy. Aimed at ensuring the fulfillment of the social function of urban property and the fair distribution of the burdens and benefits of urbanization, the Statute, guided by the Brazilian Constitution, reaffirms the Master Plan as a basic instrument of urban development and expansion policy and defines that "property it fulfills its social function when it meets the fundamental requirements for ordering the city expressed in the Master Plan" (Law n. 10,257, of July 10, 2001, art. 39) [5]; [6].

In this case, the Institute for Applied Economic Research, warns of the lack of public policies for mass public transport, which adequately and satisfactorily serve the user and lead to greater urban mobility and beyond this deficiency [7]. What we have, at the moment, is transport with increasingly expensive tickets, and scrapped vehicles, often lacking adequate security. This causes a drop of about 30% in the use of public transport in Brazil in the last ten years. In some cities, depending on the route, it is cheaper to use a motorbike or car than the bus, subway or train. Not to mention cases where there is a total absence of public transport.

In light of this diagnosis, one of the ways the government found was to promote a set of potential public policies to improve mobility in Brazilian cities, but, however, it is clear that many of these policies are not aligned with other public policies social, economic and urban. Also, another purpose of the government in urban mobility issues is to discourage the use of individual transport, and this is due to concerns about the feasibility of using the roads for the amount of vehicle in circulation. There were two parallel concerns: a) the emission of gases into the atmosphere, thus affecting the environment; and b) education of the population for safer, more aware and sustainable traffic.

1.2 Public Policy on Urban Mobility

Public transport policy is so complex that, while the return is usually long-term, on the other hand it directly influences the population's quality of life and affects

people's daily lives. Much of the assessment of municipal administrations is directly related to the performance of public managers in the area of transport. According to data from Ipea, the social importance of mobility has its repercussions on families where the family income maintainer receives an income of R\$300 to R\$400 monthly, the average mobility per inhabitant is 0, 5 or 0.6 trips per day, while in the income class above R\$ 2,500, the average mobility per inhabitant reaches 2.4 trips per day. The proposals for a fiscal and tax policy regarding urban development are still deficient and precarious in Brazil, where the production of urban infrastructure has no tradition of private investment and the residential market is sharply restricted to luxury properties. Without public investment, economic growth is insufficient to promote social development and, therefore, to promote urban development [7].

In light of this, microeconomics is another relevant issue, as it is a property stimulated by different morphological understandings. Appropriate levels of micro economics demand and depend on structures that allow levels of supply of activities compatible with the density and number of its inhabitants. Considering the idea that the economic and social development of a country is measured by the speed and density of displacement of people, goods and services, the socioeconomic analysis suggests that the displacement of workers is more penalized by time than by spending on the family budget and, also, that transport or urban displacement arises as a consequence and cause of the city's growth and the spatial and temporal distribution of the activities, functions and services that constitute it.

The city is the space for mobility and displacement, but also for the permanence and inertia of the city. In cities, solidarity and coexistence are found, both mediated by the preexisting structure: harshness. Actions in cities are limited by the forms and norms of use of these preexisting structures, which does not prevent the presence of a cultural life that subverts their forms and norms. In theory, the city is a system that groups both a globalized economy, its superior circuit, and a popular economy, its inferior circuit, produced from the needs of the place [8].

It is important that managers know and understand their territory and seek to implement policies that can be effective, and efficiently. One of the fundamental policies for the "functioning of a territory" is mobility in the territory, be it of people, goods or services and communication, be it between the government and the community or between different actors in the community. Taking the urban mobility public policy as the focus of analysis, it can be said that it needs to be minimally aligned with the other public policies of the State (housing,

land use, education, production and distribution of food, transport and others) and that it can and should be evaluated on at least two variables, which are how much: infrastructure and management. As a result, on January 3, 2012, law 12,587 was enacted, establishing the guidelines of the National Policy on Urban Mobility, as an instrument of the Brazilian urban development policy, whose objective is to contribute to universal access to the city.

The reality of the issue of urban mobility, however, shows a double design: a) normative scenario; and b) a positive scenario. First, it seems evident, in Brazil, that the search for solutions, especially in the area of mobility, takes place in such a way as to disregard other sectors such as housing, sanitation, health and education, and also to consider actions that favor pedestrians the well-being of people and not the traffic of vehicles, showing a city with impacts on the health and safety of the population. Second, it is clear that the investments made still favor lanes for vehicles and lack of actions to promote pedestrian routes or alternative transport, therefore, it seems that they are failing to consider the hierarchy of importance established by Law 12587/12 [7].

Cities that meet the criteria of Law 12,587 (with more than 20,000 inhabitants) there is little interest on the part of municipal managers in seeking to develop a democratic plan that actually promotes the improvement of urban mobility in accordance with the interests of the population local. Another issue, which directly impacts the issue of urban mobility, is the relationship between infrastructure and the management of public actions in general. Infrastructure is related to the capacity of public facilities (roads, streets, ports, railways, waterways, airports, alleys, bicycle paths) and its relationship to demand. Management is related to the way in which these devices are operated. According to Lefebvre [9] and Santos [10], the lack of infrastructure in spaces, given the demand for public transport, for example, does not meet the needs of the population in their daily commute for various activities of daily life.

The relationship of integration between the different modes and the improvement of accessibility and mobility of people and cargo in the municipality's territory are the focuses of the new law (Law 12587). It aims to improve the planning and management of the country's urban mobility systems, prioritizing investments in non-motorized means and public transport. However, the irregularity of most conceptions of the city is in the way it deals with the connection "city - transport" or the meaning of "transport in the city". According to Georges [11] it is because the city is not thought of as being "a system of movement" where it is difficult to deal with problems of

urban displacement. The conception of the city as a movement system should consider the aspects: social, cultural, economic and environmental. These aspects should interact with each other and with the environment, impacting or not, depending on their public policies that provide evidence for a concern with the environment. Public policies associated with different aspects, deliberately or not, impact on the means of travel and, consequently, on the quality of life of citizens and on the survival of the natural city.

Management establishes dependence on infrastructure. There is no possible management to resolve a chronic infrastructure incapacity. In other words, there is no management to solve a daily traffic congestion in cities, in both directions of the road, which does not have an alternative road! Furthermore, when there is a lack of geographic space for this alternative route, it is difficult, if not impossible, to resolve the previous issue of local infrastructure. The inadequacy of management may have at its origins: a) legislation; b) institutional capacity; c) planning; d) implementation of strategic actions; e) interference by political actors; and f) patrimonial culture. All these origins, alone or in combination, can generate managerial dysfunctions that lead to a loss of focus on its effectiveness. In this way, they end up embodying disputes between bureaucratic and political poles, typical of "place management". In this case, it is necessary to broaden the analysis focus and seek regional or global alternatives, and in this situation, urban mobility becomes a national issue and not just a local issue. This possibility will be disregarded in the present work, as the model to be proposed considers that the "chaotic environment" due to the deficient infrastructure is possible to be overcome with the increase of infrastructure capacity, either by physical expansion or by incorporating new ones.

In so-called democratic countries where there is an alternation of political groups in the government, where there is a technical framework capable of supporting the interests of the State against the interests of different governments, and where there is a quantity of mobility equipment that they may be considered sufficient, there may even be inadequate management, but, on the other hand, it is possible to think of a viable solution to pursue the ideal environment [12]. This situation can, as a result, be called an "inadequately managed environment". The situation will be considered "ideal" when the volume of infrastructure is sufficient for present and future demand and the equipment management is adequate, for that historical moment and that particular region. That said, the "ideal solution" is dynamic and needs to keep up with the environmental changes surrounding urban mobility equipment.

1.3 The city and the dynamics of its relationships

The city and its socio-cultural relations can be considered strong symbolic references for the personal and community ordering of identities and histories, as a large part of the world population lives in urban contexts, sharing the perception of these sites with other social groups. In this sense, the city (real, imaginary or mnemonic) constituted a basic substrate of symbolic ordering for contemporary life, and can be perceived both by personal, individual biases, as well as by broader, community elaborations, built in the life plan: social, economic and political. Therefore, the analysis of the relationships between urban planning, mobility and belonging takes into account questions about the possible perception of the urban site by social groups that are part of it.

The way of life of populations is, however, affected by the organization of the urban site, and this fact is not always considered in city planning. Harvey [13] shows, for example, how the reconstruction of Paris, in the Second Empire, and Vienna, “fin-de-siècle”, strongly influenced the modernist cultural and social movements and “... how important was the urban experience in the formation of the cultural dynamics of several modernist movements”. Further on, the author works with the comparison between modernism and postmodernism in architecture and how the influences were different since “while modernists see space as something to be shaped for social purposes... postmodernists see it as an independent and autonomous thing” and, as a result, the objective of the latter is to pursue “aesthetic principles”.

Therefore, it is considered that some characteristics of the organization and layout of cities influence both the daily practices of people moving (with or without motor vehicles) and their levels of sedentary lifestyle. There must be a community coexistence for the development of an ethical sense of social and environmental responsibility that can guarantee, for example, the option for public transport even for those who have private cars. Given this, it also requires, without a doubt, the guarantee of safety and quality to public transport. It is necessary that public transport is both efficient and effective, and is aimed at different audiences. The quality and safety of public transport can become the core of changing personal and social attitudes, as well as a new vision of the city for urban planners and managers.

For mobility to be sustainable, it is necessary to have two approaches: a) one related to the adequacy of the transport offer to the socio-economic context; and b) one related to environmental quality. The first includes measures that associate transport with urban development and social

equity in relation to displacements, and the second includes the technology and mode of transport to be used.

Consequently, sustainable mobility, in the socioeconomic context of urban areas, can be seen through actions on land use and occupation and on transport management that aim to provide access to goods and services efficiently for all inhabitants, and, thus, maintaining or improving the quality of life of the current population without harming the future generation.

In this sense, some strategies can be considered to elaborate a Mobility Plan (PM) that meets criteria that allow for the well-being of the population and the sustainable use of the urban space and its surroundings. Are they: a) transport-oriented urban development; b) encouraging short-distance travel; c) restrictions on car use; d) the adequate provision of public transport; e) the collective transport tariff, adequate to the demand and supply of public transport; f) safety for pedestrians, cyclists and people with reduced mobility; and g) safety in public transport.

Part of these strategies is related to the form of urban occupation in which the following stand out: a) densification in the vicinity of public transport corridors and stations; b) the implementation of parking lots for integration with the public transport system; c) adaptation of sidewalks and implementation of routes for cyclists; and d) safety lanes and roads suitable for special people (such as sidewalks for the visually impaired, ramps for wheelchair users).

The emergence of water ports is, almost always, closely related to the occupation and settlement of its territory. The sequence of the historical evolution of the port-city relationship almost always involves the adequacy of natural conditions, and expansion, which normally makes both the city and the port grow due to the port activity, and the specialization, which is usually function of the characteristics of the productions that circulate through the port, both those that leave (export) and those that arrive (import). Most of the ports, which are in the surroundings of an urban region, were either responsible for the beginning of the city, or used the region's infrastructure for its viability. In any case, port and city are historically inseparable situations.

The port, in theory, generates income, employment and goods for the city, while the city, also in theory, generates labor, the most diverse services and its own urban infrastructure for the port. Port and city support each other, or when managed inappropriately harm each other. Considering that the port occupies a part of the urban space, the different production chains pass through the city. The city as a “locus” of passage, or as a barrier, making it

difficult for this passage to the Hinterland (land part of the port) and the Foreland (part of berthing).

Containerization has profoundly transformed not only the world circulation system and the role of the port, but also the relationship between the port and the surrounding city (Figure 1). The traditional “situation income” generated by the consolidation and separation of cargoes in the port region is being replaced by a “transit income” as the port is becoming just another link in the chain where it transits the

container [14]. The issue of deepening and expanding containerization is transforming the port city, which historically was a place of value addition, into an obstacle to the flow of the chain and its different modes, thus causing a “port-city divorce” [15].

A parallel consequence of containerization is the increasing limitation of port functions, which are increasingly restricted to the so-called “basic functions” which are mooring of ships and transshipment.

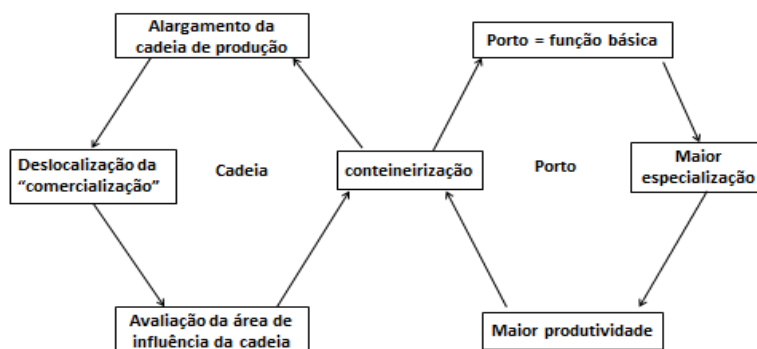


Fig.1 – The post containerization city-port dynamics

Source: authors, 2016.

Containerization has become an irreversible process for most products with high added value and causes important changes in the role of the port. The first is internal, within the port itself: it needs to perform its basic functions well (berthing and transshipment) and, for this, it needs to be “efficient”. The search for efficiency leads to a greater specialization of the routine activities of its basic functions, thus increasing the greater productivity of the port, which can and should be measured in terms of operating time, operating volume and operating cost.

Given this, the search for productivity, makes the port to privilege containerized cargo and, for this, orients its infrastructure to do so. The second major change caused by containerization is external to the port, in the production chain, that the port is just a link. After the exhaustion of the hegemonic idea of Fordism, where organizations sought centralization and verticalization, today, in the post-Fordist era, different sectors started to be responsible for just a few stages of production, thus giving rise to the idea of the “production chain”.

In terms of adequate conditions and the organization's viability, production has been expanded, especially after the 1970s. Until recently, however, many ports were still “outside” the production chain logic, but working with containerization, soon generating operational difficulties for themselves. When the paradigm is the reproduction

chain, there is an expansion of the idea of production and the port can be considered as an operating unit (OU) or production unit (UP), which, articulated with the other links in the chain, can provide competitiveness for a particular sector or chain.

In this context Alves and Raia Júnior [16], argue that the current conditions of mobility and public transport services in Brazil direct the action of the Secretariat of Urban Mobility (Ministry of Cities) in three strategic axes that group the issues to be faced: a) to promote citizenship and social inclusion by universalizing access to public transport services and increasing urban mobility; b) promote institutional, regulatory and management improvement in the sector; and c) coordinate actions for the integration of mobility policies and these with other urban development and environmental protection policies.

However, the aforementioned “extension” of the chain makes it possible to relocate the commercialization of goods and services that historically were carried out in or around the port. This relocation of marketing, in turn, provides opportunities for the expansion of the area of influence of the production chain itself and its consequent globalization. Now, for this process to be improved, new OU and UP need to be added, generating, simultaneously, a search for international suppliers and an increase in the

circulation of containers within the production chain itself (Figure 2).

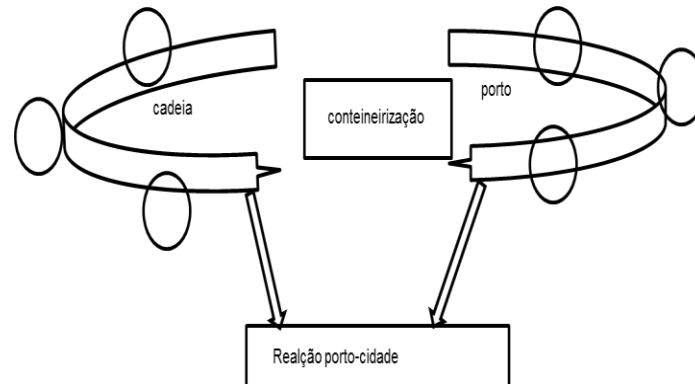


Fig.2 - The port-chain and its new dynamics

Source: authors, 2016.

In this sense, you notice that there are two changes (Figure 2). One inside and one outside the port, profoundly transforming not only the role of the port, but also the port-city relationship. A challenge of “port governance”, on the other hand, is to make the surroundings of the port area stop being an obstacle, defined by some authors of “roughness”, and become a region of added value for the chains that circulate there [17]. Therefore, it is necessary to manage the “port-city” relationship.

II. METHODOLOGY

The adopted methodology was an exploratory and descriptive study of qualitative analysis through content analysis, and the data were obtained through secondary sources, using normative and legislative documents on port operation and urban mobility projects, available on the portals of the port of Porto Alegre and documents, data and information from the Municipality of Porto Alegre. It is based on the hypothesis that the data made available to these portals are trustworthy and real, as there is a whole “legal framework” that requires public organizations to be transparent in their actions, actions and decisions.

III. RESULTS AND DISCUSSION

The study outlined the relationships between urban mobility and the city-port linking path. The choice is due to the fact that Porto Alegre over the past ten years has been a protagonist in transformations, conflicts and a place for debate on social and environmental issues in a global context. The city of Porto Alegre was founded on March 26, 1772. In 2010, the city had 1,409,351 inhabitants, representing 13.2% of the population of the State of Rio Grande do Sul. With an area equal to 496.682 km², it has a population density of 2,837.53, with 53.61% of the population being women and 46.39% men, with an HDI of 0.865, with a humid subtropical climate. With an area equal to 496,682 km², it has a population density of 2,837.53, with 53.61% of the population being women and 46.39% men, with an HDI of 0.865, with a humid subtropical climate. Therefore, it is worth highlighting some facts peculiar to the city's history and its evolution and dynamics, such as after the end of the Farrapos War, the city resumes its development and undergoes a strong urban restructuring in the last decades of the 18th century, driven mainly by the rapid growth of port activities and shipyards.



Map 1- Map of the City of Porto Alegre- RS

Source: Google Maps, 2021.

Thus, development was continuous over time and the city remained at the center of cultural, political and social events in the country as a land of great writers, intellectuals, artists, politicians and events that marked the history of Brazil. Porto Alegre's Master Plan still dates from the beginning of the 20th century, with the so-called "General Improvement Plan" in 1914. However, the first attempt to implement a global vision of the city's problems was a typical road plan, based on well-defined guiding principles, establishing the need to create sufficiently wide access roads to relieve traffic from the Center to the periphery and vice versa. The watchwords were: "extend, widen, open avenues". Thus, roads of fundamental importance in the structuring of the city were designed. However, according to federal law 12.587/2012 of the Ministry of Cities, which determines that cities with more than 20,000 inhabitants prepare their Urban Mobility Plans, in this sense the city fulfills the requirement with the PlanMob of Porto Alegre.

The capital of the state of Rio Grande do Sul, it is a city that is home to several ethnic groups. In the last decade, it has hosted several events such as: World Social Forum, Freedom Forum, 2014 World Cup, and many other events that require mobility and a sustainable city able to receive visitors and provide an adequate synergy between visitors and visitors under the conditions of an infrastructure with adequate load capacity and its range of and urban traffic.

All these mobility management issues are enhanced when the city is a port. The biggest problem, in these cases, is to ensure that the city does not have its back to the port and manages to integrate the port and its activities with the dynamics of the city itself. For this, both the port and the city need to carry out their plans taking into account the “other”, such as Valencia (Spain) and its port. Considering

that containerization is inevitable in the short and medium term, a third actor needs to be considered here, which is the supply chain or economic sectors that use the city and port structures (Figure 3).

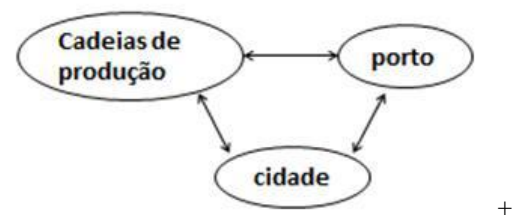


Fig.3 – Port-city connections

Source: authors, 2021.

For integration to take place (Figure 3), urban planning, when containerization emerges, needs to adjust and consider the specificities of the products that circulate there, in order to become a support site for the production system and not an urban barrier. The port planning needs, after respecting the legislation, to consider the urban specificities of its surroundings, as well as the fundamental characteristics of the sectors that use the port to, for example, build a retro port area or a zone of logistical activity (ZAL) that can leverage the competitiveness of port users.

The Port of Porto Alegre is located on the banks of the Guaíba River. The management program for the port and its surroundings, which includes the different secretariats and departments such as: the Environment (Smam) and Culture (SMC), the Special Secretariat for Accessibility and Social Inclusion (Seacis), and the municipal departments of Water and Sewage (Dmae), Rain Sewage (DEP) and Urban Cleaning (DMLU). Its management

considers the following objectives: a) urban planning and development of the Municipality, counting on the participation of society in the elaboration and monitoring of urban development programs, with a view to designing and building the Porto Alegre of the future; b) acting in places that offer development opportunities for the city, as well as in degraded areas, seeking their regularization and revitalization through infrastructure improvements, without neglecting the preservation of areas of environmental and cultural importance for the city; and finally c) optimize and integrate transport modes, alleviating downtown pollution; and d) expand the city's sewage and water treatment networks in order to avoid environmental contamination, improve the bathing conditions of Lake Guaíba and, consequently, provide the population with quality of life [18].

Rocha et al. [19], highlight the need to consider Mobility Management strategies in a way that adheres to the cultural, social and economic model of each community, guaranteeing their explicit participation in the decision-making process. Mobility Management could, in this way, contribute to the mitigation of impacts generated in the operation of transport systems and promote greater democratization in the implementation of actions that aim to ensure greater balance in the occupation of urban space.

The National Urban Mobility Policy adopted by the Ministry of Cities aims to discuss issues related to Sustainable Urban Mobility in the city. For this, the following measures must be taken: a) emphasize the use of collective transport and not individual transport; b) reduce congestion in the city; c) reduce environmental pollution generated by means of transport; d) reduce the number of traffic accidents; e) encourage the use of non-polluting and renewable fuels; f) guide public investments in the transport sector; and g) guide the equipment, the distribution of transport infrastructure, the circulation and distribution of goods and people in the city. Thus, the

twenty-nine guidelines of the National Urban Mobility Policy are based on the objective of prioritizing pedestrians, cyclists, public transport passengers, people with disabilities, people with special needs and the elderly, in the use of urban circulation space [16].

According to data from PlanMob-Porto Alegre, the city currently has 81 official neighborhoods, whose boundaries are defined by 28 specific laws. There are still some areas of the territory without an official name (such as Indefinite Zones) and which are known by the population by local names, such as Morro Santana, Passo das Pedras and Aberta dos Morros. The city's neighborhoods are distributed throughout the city's territorial area, covering the north, south, east, west (on the islands of Lake Guaíba) and in the central area, which, due to its occupation process, is located in the peninsular region by the lake.

After several municipal political incentives, the city underwent a decentralization of activities that were traditionally located in the center, thus generating new regional centers that were consolidated over the last few decades. This model allowed the creation of new poles of attraction due to both services and commerce, as well as industries consolidated in different regions. However, despite this process, the historic center still remains today as a major commercial, service and cultural hub, attracting a circulation of people and vehicles, which is still expressive. In the period 2013/2014, the city of Porto Alegre had several urban mobility works started, due to the World Cup, which impacted the system's operation.

Porto, mainly in the region around the Mauá Wharf, is close to the historic center of Porto Alegre. According to the SPH (Superintendence of Ports and Waterways) (2015), the Port of Porto Alegre, despite having fluvial characteristics, is classified as a sea port, according to Resolution No. 2969 -ANTAQ, of July 4, 2013. It maintains eight kilometers of berth, divided between the Mauá, Navegantes and Marçílio Dias docks [20].



Map 2- Mauá Wharf

Source: Google Earth, 2016.

Its structure involves 25 warehouses with 70 thousand m², in a total area of 450 thousand m². Since the first half of 2005, the operating area of the public port has been concentrated on the Navegantes wharf, which has been qualified in the international ISPS-CODE safety standards since 2010. It has the capacity to operate up to 3 long-haul ships simultaneously.

At the end of 2012, the port of the Capital Gaúcha started to participate in the program developed by the Federal Government, called Porto Sem Papel - PSP, where all its port data are concentrated, sharing them with the consenting bodies (Federal Police, Federal Revenue, VIGIAGRO, ANVISA, Brazilian Navy, among others).

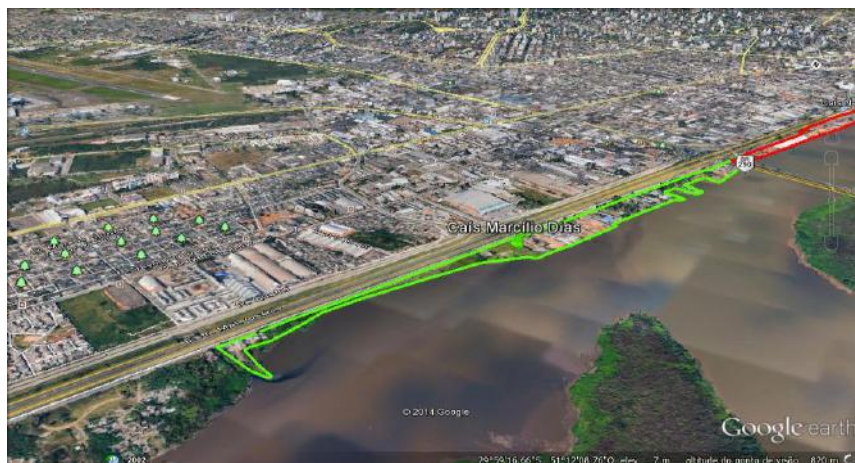


Map 2- Navegantes Wharf

Source: Google Earth, 2021.

The Navegantes wharf is 2,500m long, 20m wide, 5 to 6m deep and has a height of 3m. It is intended for commercial cargo, but its zoning has distinct areas for multipurpose,

grain, fertilizer and general cargo terminals, especially in the region called Marcílio Dias (Map 3).



Map 3- Marcilio Dias Pier

Source: Google Earth, 2021.

Since 2010, the logistical movements of the Port of Porto Alegre, together with the private terminals, move about 6 million tons/year, in products such as maritime platform mooring ropes, fertilizers, salt, vegetable grains, electrical transformers and cellulose and in 2018 it registered the movement of cargoes of 7.1 million tons, through the port complex that involves: Porto Alegre, TUP CMPC Guaíba,

Santa Clara Terminal, TUP Oleoplan, TUP Bianchini Canoas, ETC Yara Porto Alegre, Niterói Waterway Terminal, Tergasul and TUP SHV [21].

The projection of the studies indicates a trend scenario, the demand for the Port Complex should grow, on average, 0.9% per year, between 2018 and 2060, in an optimistic

scenario, this rate is 1.0% per year; in the pessimistic scenario, there is an average annual growth of 0.7% for the same period [21]. Currently, waterway transport accounts for only 4% of the State's navigation matrix capacity use. The expansion of the use of the waterway is a global trend, as a matter of environmental and economic sustainability. Sooner or later, companies, especially those engaged in environmental preservation, will use the modal more frequently. The government's goal is to increase the share of cargo handling by waterway in the Port of Porto Alegre [21].

The municipal public administration of Porto Alegre has been developing Sustainable Urban Mobility projects, whose main premise is the adoption of an integrated

transport system with operational flexibility, minimizing the need to carry out compulsory transfers for neighborhoods with high demand and constituting in the functional restructuring for the physical, operational and tariff articulation of the city's public transport system.

The sustainability axes, which are necessary for the development and implementation of the Integrated Transport Plan, were detailed in PITMUrb as follows: a) institutional integration; b) integration of transport and urban and environmental interventions; c) functional integration of transport; d) tariff integration; e) integration of control and information to the user; and f) financing integration. The axes are interconnected (Figure 4).



Fig.4 - Axes of sustainability of the Integrated Transport System (SIT) in Porto Alegre, Rio Grande do Sul.

Source: PlanMob Porto Alegre, RS 2015.

The Action Plan for the Integrated Transport System was prepared with the PITMUrb as a reference, and aims to establish, in partnership with the State of Rio Grande do Sul (Metroplan), the Metropolitan Transport Consortium, as provided for in the Integrated Transport Plan and Urban Mobility (PITMUrb) and formatted in Law 11.107 / 2005. For its implementation, it is essential to understand the spheres of government involved, through an institutional structure that can design, design and implement an Integrated Transport System (SIT), define and implement the policies necessary for sustainable development, define and execute the services to be explored by the private sector in a coordinated way for all modes, implement a new regulatory framework and monitor the bidding of concessions for different types of services in the new system.

IV. FINAL CONSIDERATIONS

The most important issue when working with the port-city relationship is the alignment of public policies aimed at Urban Mobility issues in Porto Alegre. Because, the city is in a context of political, economic, environmental and social changes that configure a scenario of uncertainties on how to replan the city for Porto Alegre and for those who pass here, because the conflicts and shortages are evident and complex.

It is believed that it is possible to think about actions for a better logistical development of the city. PlanMob-Porto Alegre, which is currently being implemented with actions to improve the edge of the Porto Alegre port complex, such as leisure and entertainment spaces, actions to improve physical capacity and port berthing in the commercial and customs area have not yet been realized. The economic potential of the Port of Porto Alegre may boost and greatly favor the local and regional economy, but it needs attention from the public sector and the local community needs to establish a closer and more responsible relationship with the Port and its shoreline.

The city of Porto Alegre has potentials that favor the insertion and operation of the most varied modes for urban mobility, as its geographic location makes it one of the central axes of the State of Rio Grande do Sul for the flow of crops and the circulation of goods and people. It is perceived that it is a city in transformation that needs aligned public policies that effectively and efficiently meet the demands of the sustainable development of the economy in line with social, environmental and cultural issues.

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